VOCATIONAL INFORMATION FOR PUPILS IN A SMALL CITY HIGH SCHOOL

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The course in vocational information in the Middletown, Connecticut, High School is divided as follows: the first is a careful consideration of the importance of vocational information, the characteristics of a good vocation, and how to study vocations; the second and main part is a detailed treatment of some eighty or ninety professions, trades, and life-occupations grouped under agriculture, commercial occupations, railroading, civil service, manufacturing, machine and related trades, the engineering professions, the building trades, the learned professions and allied occupations, and miscellaneous and new openings; and the third and concluding part of the course is a practical, thoroughgoing discussion of choosing one's life-work, securing a position, and efficient work and its reward.

Unfortunately, although there are many excellent reference books, bulletins, etc., there seems to be as yet no one suitable book which the pupils can use as a basal text. Here may I be allowed to make a confession? Owing to the difficulties encountered in assigning the lessons, for two years we suspended our work in vocational information, hoping to find a thoroughly satisfactory textbook, or perhaps to wait for the publication of such a one, but, while we know of a manuscript that we think would just fill the bill, we are through with waiting and are making the best use we can of the texts already at hand.

We have found the following books fairly satisfactory as companion texts when supplemented by considerable collateral reading: *Careers for the Coming Men,* by Whitelaw Reid and others; *What Shall Our Boys Do for a Living?* by Charles F. Wingate; and *Starting in Life,* by Nathaniel C. Fowler, Jr. Among the best reference works for the pupils the following are worthy of mention: the vocational booklets published by the Vocation Bureau of

Boston and by the Students' Aid Committee of the High School Teachers' Association of New York City; many free bulletins issued by the federal and various state governments and by the International Correspondence Schools; catalogues, bulletins, and pamphlets of colleges and of trade and professional schools; many trade journals; and a series of ten volumes on *Vocations* edited by William DeWitt Hyde.

In studying each of the vocations we touch upon its healthfulness, remuneration, value to society, and social standing, as well as upon the natural qualifications, general education, and special preparation necessary for success. Naturally, we investigate at first hand as many as possible of the vocations found in our city and vicinity. Each pupil is encouraged to bring from home first-hand and, as far as practicable, "inside" facts concerning his father's occupation. Local professional men, engineers, business men, manufacturers, mechanics, and agriculturists are invited to present informally and quite personally the salient features of their various vocations. And here, since these experts, not being teachers, would otherwise be likely to miss the mark completely and present phases of their work of little interest or value to the pupils, each speaker has explained to him carefully beforehand the purpose of the course in vocations and specifically just what is desired in his particular address.

In order to make this presentation of our course in vocational information just as concrete and understandable as possible, I shall now outline for you two typical lesson plans in two rather separate departments of the vocational field; one is on the poultryman and the other on the mechanical engineer. Also, let me remind you that our work so far has been adapted to the boys only; a little later I shall speak of our recent beginnings for the girls. The lesson plans now follow.

A LESSON PLAN ON THE POULTRYMAN

NOTE.—This lesson may be completed in from one to three days, the treatment depending upon the particular locality and the needs and interests of the class.

The setting of the lesson.—Before taking up the poultryman, the class has had a good introduction to general farming and has stressed the importance of agriculture, the nature of this sort of work, present social advantages,

remuneration in money and otherwise, qualifications and education desirable, and starting and succeeding in agriculture. The pupils have also completed, in specialized farming, the stockraiser and the dairyman and, as soon as they have finished this lesson outlined on the poultryman, they will study the market gardener, the fruit-grower, and, more briefly, other miscellaneous agricultural workers, such as the nurseryman, the seedsman, the beekeeper, the veterinary, etc.

Lesson assignments preparatory to the recitation.—All members of the class have been assigned a lesson in their textbook on vocations, or, possibly, in several such books. The class, as individuals or in small groups, has been directed to several farmers' bulletins, issued by the United States and various state governments, to the agricultural yearbooks of the last three or four years, catalogues of agricultural colleges, and if possible to at least one book and one magazine of the following: *Down-to-Date Poultry Knowledge*, by F. W. DeLancey; *Farm Poultry*, by G. C. Watson; *Principles and Practice of Poultry Culture*, by J. H. Robinson; and the monthly periodicals, the *Poultry Fancier* and the *Egg Reporter*.

Two or three members of the class, especially interested in this vocation, have been directed, as special assignments, to interview any local poultry-raisers or dealers in eggs and dressed poultry in order to report to the class such items of interest as the following: how many hens these men raise or sell in a year; how many dollars worth of business they transact; what breeds they find most satisfactory; whether eggs or dressed poultry pay better; whether most of the poultry products consumed in town are raised near by or at a distance; whether the poultry business locally is overdone or offers an attractive opening for young men; how much capital would be necessary to make a fair start, etc.

From their books, bulletins, and periodicals the pupils get vocational facts of a more or less general character, while from the raisers and dealers interviewed they are able to get first-hand, concrete, localized information.

The class exercise or recitation.—The pupils will learn that the eggs produced and the poultry found on the farms by the United States census enumerators in 1910 were worth as much as the wheat crop, or about $620,000,000; that the great egg-producing section of our country is the Mississippi Valley and that this product is not raised by expert poultrymen at all but by general farmers as an incidental or side production; that the scientific poultryman makes his profits by keeping better breeds of hens, whether for egg-laying or meat purposes, in more efficient handling, or care, of fowls to secure greater returns, and in wiser methods of marketing his products. Of course, they also learn something of the nature of poultry-raising and what qualities and education are desired of the prospective poultryman, as well as how one might enter this work and how succeed in it. In this connection, they will investigate and discuss some of the many advantages to be gained from a course in an agricultural college.

The class will discuss such topics as these: the advantages and disadvantages of making poultry-raising a distinct business rather than a branch of general farming; a comparison of eggs and beef in nutritive value and digestibility; the likelihood of poultry products serving as an increasingly important substitute for beef, pork, and mutton; the advisability of selling eggs by the pound rather than by the dozen; how to produce eggs of the best quality and then how to get the best prices for them; how to test and grade eggs; how to discover the particular hens in one's flock that are the best layers; some of the best breeds for egg-producing, for meat, for general purposes; the necessary equipment for poultry-raising, and its cost; the incubator; proper care of laying hens and of poultry for meat purposes; and which is better adapted to a particular locality—poultry-raising, fruit culture, dairying, or general farming.

A LESSON PLAN ON THE MECHANICAL ENGINEER

The place and setting of the lesson.—The treatment of the mechanical engineer in the textbook will be found in the chapter devoted to the engineering professions. Before this particular lesson is taken up the class has already studied a general introduction to the whole field of engineering, touching upon the history, the general division into civil and military engineering, and the inestimable services this group of men has rendered and continues to render mankind in relation to inventions, manufacturing, transportation, communication, conservation, sanitation, etc., instancing such triumphs as the telegraph, the modern printing press, an automobile factory, the Simplon Tunnel, the Brooklyn Bridge, the Panama Canal, reclamation of western land, etc.

Next there was considered in brief outline a general scheme of the work performed by each of the following engineers: the civil engineer, the municipal and sanitary engineer, the mechanical engineer, the electrical engineer, the mining engineer, the metallurgical engineer, the industrial chemist, and the architectural engineer. After completing this general survey of the engineering field, the class treated in detailed fashion the callings of the civil engineer and of the municipal and sanitary engineer. The pupils are now ready to undertake this lesson on the mechanical engineer, which we are about to outline, and they will make a similar detailed study of the remaining five engineers, whose general scheme of work we have already surveyed, and thus they will complete the chapter on the engineering professions.

Lesson assignments preparatory to the recitation.—So much for the setting of the lesson on the mechanical engineer. In preparation for the class exercise or recitation the whole class is asked to review the general scheme of the work of the mechanical engineer and to study the new section in their textbook or books dealing with the nature of this special branch of engineering; its advantages and disadvantages as a life-calling; the remuneration at the start and in a man's prime; the opportunities for regular employment and advancement; and the natural qualifications, the general education, and the special training required.

The entire class, as individuals or in small groups, has been assigned special topics in such free bulletins as *Graduates and Their Occupations*, published by the Massachusetts Institute of Technology; *Suggestions concerning the Choice of a Course in Engineering*, issued by the Carnegie Institute of Technology; *Announcement of the Co-operative Courses of the University of Cincinnati; Mechanical Engineering*, by the International Correspondence Schools; in such catalogues as those of the Massachusetts Institute of Technology, Columbia School of Mines, Cornell University, etc.; in such books as Goddard's *Eminent Engineers*, and McCullough's *Engineering as a Vocation;* and, if possible, in at least two of the periodicals, *Popular Mechanics*, *Scientific American*, *Engineering Magazine*, and *Engineering News*.

One or two of the pupils especially interested in this vocation should interview some near-by mechanical engineer in order to report to the class some such items of interest as the following: what work this engineer is engaged in at present; what he considers the greatest piece of mechanical engineering in the neighborhood; how he ranks his branch of engineering with the others; what natural or native qualifications he considers of greatest value to the prospective engineer; what subjects in high school he considers of most importance for his calling; would he advise the regular technological course or the co-operative school and shop course; does he consider mechanical engineering an especially attractive profession, etc.

While studying this branch of engineering, or some other, it would be well to secure a practical, successful engineer to talk to the class informally about any phases of his profession or experiences he has had that would prove of especial interest and value to the study.

The class exercise or recitation.—During the recitation the class might discuss such topics as: which of the three engineers so far studied in detail renders society the greatest service; which one is most necessary to your particular community; which one's work seems perhaps the most attractive; what natural qualifications, what general education, and what special training are absolutely necessary for success in this profession; what subjects should constitute the best high-school course preparatory to this profession; what subjects the best technological schools demand for entrance; what are the advantages and the disadvantages of preparing for this profession in a co-operative school and shop course; what kind of work during summer vacations would serve best in trying out a boy's aptitude for mechanical engineering; what is the difference between an expert machinist and a mechanical engineer; what is a contracting mechanical engineer, etc.

We have just introduced a similar course for girls the second half of this year and are using as texts Lasalle and Wiley's *Vocations for Girls*, Weaver's *Vocations for Girls*, and Perkins' *Vocations for the Trained Woman*, directly supplemented by the

dozen or more pamphlets issued by the Appointment Bureau of the Women's Educational and Industrial Union of Boston, Massachusetts.

When we consider that such a course in vocational information is practicable everywhere, that it is inexpensive, and that besides being intrinsically interesting to the pupils it actually gives them greater respect for all kinds of honorable work, helps them sooner or later to choose more wisely their life-work, convinces them of the absolute necessity for a thorough preparation before entering any vocation and holds to the end of the high-school course many who otherwise would drop out early in the race, should we then apologize when we urge upon educators and the tax-paying public that this branch of vital human knowledge be given a place in all our high schools, especially when it will require only as much time as commercial arithmetic or geography, or one-half as much as algebra, or one-sixth as much as German or French, or finally one-eighth as much as Latin?

Let us not forget that there are already fifty American cities and towns giving their youth some form of systematic vocational guidance. These have done the hard pioneer work; why can we not increase the number to five hundred within a year or two and then make it general within five years? We can easily effect this, if every earnest educator will do his part in his own school system.